

Claims:

1. The virus LAV ~~MAL~~ comprising RNA corresponding to the cDNA of figs. 7A-7I.
- 5 2. The cDNA of figs. 7A-7I.
3. A DNA recombinant comprising the cDNA of claim 2.
- 10 4. A probe containing a nucleic acid sequence hybridizable with RNA of said LAV ~~MAL~~ virus of claim 1.
5. A method for identifying the presence in a host tissue of LAV virus which comprises hybridizing RNA obtained from said tissue with said probe of claim 4.
- 15 6. The method of claim 5, wherein said probe can hybridize with RNA from said LAV ~~MAL~~ virus to identify said LAV ~~MAL~~ virus.
7. A peptide or fragment thereof whose amino acid sequence is encoded by an open reading frame of a cDNA sequence of the LAV ~~MAL~~ virus of claim 1.
- 20 8. The peptide of claim 7 encoded by a cDNA sequence from amino-acyl residue 37 to amino-acyl residue 130, or from amino-acyl residue 211 to amino-acyl residue 289, or from amino-acyl residue 488 to amino-acyl residue 530 of figs. 3A-3F and 7A-7I.
- 25 9. The peptide of claim 7 encoded by a cDNA sequence from amino-acyl residue 490 to amino-acyl residue 620 or from amino-acyl residue 680 to amino-acyl residue 700 of figs. 3A-3F and 7A-7I.
- 30 10. The peptide of claim 7 which comprises a protein or glycoprotein whose amino acid sequence is encoded by all or part of one of the following cDNA sequences of figs. 3A-3F and 7A-7I:
- OMP or gp110 proteins, including precursors: 1 to 530;
- OMP or gp110 without precursor: 34-530; and
- 35 TMP or gp41 protein: 531-877.
11. The peptide of claim 10 encoded by all

or part of one of the following cDNA sequences of figs. 3A-3F and 7A-7I: 37-130, 211-289, 488-530, 490-620 or 680-700.

5 12. A method for the in vitro detection of the presence of an antibody directed against a LAV virus in a human body fluid, which comprises: contacting said body fluid with an antigen obtained from said virus LAV_{MAL} of claim 1, said antigen consisting of a peptide or a fragment thereof whose amino acid sequence is encoded by an open reading frame of a cDNA sequence of figs. 7A-7I; and then detecting the immunological reaction between said antigen and said antibody.

10 13. The method of claim 12 wherein said antigen detects said LAV_{MAL} virus of claim 1.

15 14. The method of claim 12 which comprises the steps of:

- a) depositing a predetermined amount of said antigen into a cup of a titration microplate;
- b) introducing increasing dilutions of said body fluid into said cup;
- c) incubating said microplate;
- d) washing the microplate with a buffer;
- e) adding into said cup a labelled antibody directed against blood immunoglobulins; and then
- f) determining whether an antigen-antibody-complex has formed in said cup which is indicative of the presence of a LAV antibody in said body fluid.

20 15. A diagnostic kit for the in vitro detection of antibodies against a LAV virus, which kit comprises: an antigen consisting of a peptide of claim 7.

25 16. The kit of claim 15 wherein the antigen consists of a peptide of said LAV_{MAL} virus of claim 1, encoded by the open reading frame of a cDNA sequence of said LAV_{MAL} virus.

5 17. An immunogenic composition comprising: an antigen of the LAV_{MAL} virus of claim 1 or an immunogenic peptide or fragment thereof encoded by RNA of said virus; and a physiologically acceptable carrier.

18. The immunogenic composition of claim 17 wherein said peptide is the gp110 envelope glycoprotein or a fragment thereof.

10 19. The immunogenic composition of claim 17 wherein the peptide comprises a protein or glycoprotein whose amino acid sequence is encoded by all or part of one of the following cDNA sequences of figs 3a-3F and 7A-7I:

15 OMP or gp110 proteins, including precursors:
1 to 530;

OMP or gp110 without precursor: 34-530; and
TMP or gp41: 531-877.

20 20. The composition of claim 19 wherein the protein or glycoprotein is encoded by all or part of one of the following cDNA sequences of Figs. 3A-3F and 7A-7I: 37-130, 211-289, 488-530, 490-620 or 680-700.

21. An antibody formed against a peptide of claim 7.

25 22. A cell transformed with a DNA recombinant of claim 3.

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Add AB3

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Add D'7

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